



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-8847; Directorate Identifier 2016-NM-020-AD; Amendment 39-18742; AD 2016-25-16]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Bombardier, Inc. Model CL-600-2E25 (Regional Jet Series 1000) airplanes. This AD was prompted by reports of two cases where the main landing gear (MLG) failed to fully extend; it was determined that interference between the MLG door and the MLG fairing seal prevented the MLG door from opening fully. This AD requires repetitive inspections of the MLG fairing, fairing seal, door, and adjacent structures; and replacement or repair of affected parts and fasteners, or removal of the MLG door, if necessary. This AD also requires installation of a safety guide in the MLG fairing and an increase of the spacing between the MLG door and the fairing, which would terminate the repetitive inspections. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; Widebody Customer Response Center North America toll-free telephone 1-866-538-1247 or direct-dial telephone 1-514-855-2999; fax 514-855-7401; email ac.yul@aero.bombardier.com; Internet <http://www.bombardier.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-8847.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-8847; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Fabio Buttitta, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office (ACO), 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7303; fax 516-794-5531.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply certain Bombardier, Inc. Model CL-600-2E25 (Regional Jet Series 1000) airplanes. The NPRM published in the Federal Register on August 26, 2016 (81 FR 58874) (“the NPRM”).

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2015-30, dated December 30, 2015 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc. Model CL-600-2E25 (Regional Jet Series 1000) airplanes. The MCAI states:

Two cases of main landing gear (MLG) failure to fully extend have been reported on model CL-600-2C10/-2D15/-2D24 aeroplanes. Investigation determined that interference between the MLG door and the MLG fairing seal prevented the MLG door from opening.

Although model CL-600-2E25 aeroplanes feature new MLG door design, similar interference between the MLG door and the MLG fairing seal could exist on aeroplanes listed in the Applicability section of this [Canadian] AD. An MLG failing to extend may result in an unsafe asymmetric landing configuration.

This [Canadian] AD mandates the repetitive inspection and rectification [which could include replacement or repair of affected parts and fasteners, or removal of the door, if necessary], as required, of the MLG fairing and seal, MLG door, and adjacent structures, until the mandatory terminating action is completed.

The terminating action includes installation of a safety guide in the MLG fairing and an increase of the spacing between the MLG door and the fairing, which would terminate the repetitive inspections. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-8847.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

We reviewed the relevant data and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

Related Service Information under 1 CFR part 51

We reviewed Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013. The service information describes procedures for detailed inspections of the MLG fairing, fairing seal, door, and adjacent structures; replacement or repair of affected parts and fasteners and removal of the MLG door.

We also reviewed Bombardier Service Bulletin 670BA-32-049, dated May 26, 2015. The service information describes procedures for installation of a safety guide in the MLG fairing and an increase of the spacing between the MLG door and the fairing.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

We estimate that this AD affects 40 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated costs				
Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection and Installation	50 work-hours X \$85 per hour = \$4,250	\$0	\$4,250	\$170,000

We have received no definitive data on the costs for the on-condition repairs that will be required based on the results of the inspection.

We estimate the following costs to do any necessary replacements/removals that will be required based on the results of the required inspection. We have no way of determining the number of aircraft that might need these replacements/removals:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replacement of damaged fairing seal	6 work-hours X \$85 per hour = \$510 per seal replacement	\$921 per seal	\$1,431 per seal replacement
Removal of MLG door	3 work-hours X \$85 per hour = \$255 per removal of MLG door	\$0	\$255 per removal of MLG door

Optional actions

Action	Labor cost	Parts cost	Cost per product
Installation of MLG door	13 work-hours X \$85 per hour = \$1,105	\$0	\$1,105

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2016-25-16 Bombardier, Inc.: Amendment 39-18742; Docket No. FAA-2016-8847; Directorate Identifier 2016-NM-020-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc. Model CL-600-2E25 (Regional Jet Series 1000) airplanes, certificated in any category, serial numbers 19002 through 19041 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 32, Landing gear.

(e) Reason

This AD was prompted by reports of two cases where the main landing gear (MLG) failed to fully extend; it was determined that interference between the MLG door and the MLG fairing seal prevented the MLG door from opening fully. We are issuing this AD to detect and correct interference between the MLG door and the MLG fairing

seal. Such interference could result in a MLG failing to fully extend, which could cause an unsafe asymmetric landing configuration.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspection of MLG Fairing, Fairing Seal, Door, and Adjacent Structures

Within 660 flight hours after the effective date of this AD, conduct a detailed inspection for damage to the MLG fairing, fairing seal, door, and adjacent structures, and for missing parts and fasteners, in accordance with Part A of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013. Repeat the inspection thereafter at intervals not to exceed 660 flight hours until the installation required by paragraph (m) of this AD is done.

(h) Replacement of MLG Fairing Seal or Door Removal

If damage to the MLG fairing seal is found during any inspection required by paragraph (g) of this AD, before further flight, replace the seal, in accordance with Part B of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013; or remove the MLG door, in accordance with Part C of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013.

(i) Repair of the MLG Door or MLG Door Removal

If damage to the MLG door is found during any inspection required by paragraph (g) of this AD, before further flight, repair using a method approved by the Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization

(DAO); or remove the MLG door, in accordance with Part C of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013.

(j) Repair of the MLG Fairing

If damage to the MLG fairing is found during any inspection required by paragraph (g) of this AD, before further flight, repair using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO.

(k) Repair of the Adjacent Structure and Other Corrective Actions

If damage to the adjacent structure is found or if any part or fastener is found missing or damaged during any inspection required by paragraph (g) of this AD, before further flight, do the applicable actions specified in paragraphs (k)(1) and (k)(2) of this AD.

(1) Replace missing or damaged parts and fasteners, in accordance with Part A of the Accomplishment Instruction of Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013, except where Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013, specifies to contact Bombardier, before further flight, repair using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO.

(2) Repair damaged structure using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO.

(l) Reinstallation of the MLG Door

For any MLG door that has been removed as specified in paragraph (h) or (i) of this AD: Reinstallation of the door, if accomplished, must be done in accordance with Part D of the Accomplishment Instructions of Bombardier Service Bulletin

670BA-32-041, dated March 28, 2013. Before further flight after any reinstallation, the inspection required by paragraph (g) of this AD must be done and the inspection must be repeated thereafter at the times specified in paragraph (g) of this AD until the installation required by paragraph (m) of this AD is done.

(m) Installation of a Safety Guide on the MLG Fairing and Increase of Spacing between MLG Door and Fairing

Except as required by paragraph (n) of this AD: Within 6,600 flight hours or 36 months, whichever occurs first, after the effective date of this AD, install a safety guide on the MLG fairing and increase the spacing between the MLG door and the fairing, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-049, dated May 26, 2015. Accomplishment of these actions terminates the requirements of paragraphs (g) and (l) of this AD.

(n) Provisions for Removed/Reinstalled Doors

If the MLG door has been removed in accordance with Part C of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013, the installation required by paragraph (m) of this AD may be delayed until the MLG door is reinstalled in accordance with paragraph (l) of this AD. When the removed MLG door is reinstalled, the installation required by paragraph (m) of this AD must be done at the time specified in paragraph (m) of this AD or before further flight after reinstallation of the removed MLG door, whichever occurs later.

(o) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York ACO, ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO. If approved by the DAO, the approval must include the DAO-authorized signature.

(p) Related Information

Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2015-30, dated December 30, 2015, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-8847.

(q) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013.

(ii) Bombardier Service Bulletin 670BA-32-049, dated May 26, 2015.

(3) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; Widebody Customer Response Center North America toll-free telephone 1-866-538-1247 or direct-dial telephone 1-514-855-2999; fax 514-855-7401; email ac.yul@aero.bombardier.com; Internet <http://www.bombardier.com>.

(4) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:
<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.
Issued in Renton, Washington, on December 1, 2016.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.
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